

## Quiz 6: Section 6.1

1. Consider the power series  $\sum_{n=1}^{\infty} \frac{4^n x^n}{n!}$ . Find the Radius of Convergence and the Interval of Convergence of this series.

2. Suppose you are given a power series  $\sum_{n=0}^{\infty} c_n(x-7)^n$  for some coefficients  $c_n$  and you are told that the series converges at  $x = 9$  and diverges at  $x = 11$ . Does the series converge or diverge at  $x = 6$ ? Justify your answer.